PPC-1573PT-COLD

Sub-Zero Low Power 15” Touch Panel PC

User’s Manual

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SECTION 1 INTRODUCTION

1.1 Introduction

This Panel PC is designed to be used under Sub-zero e.g. -20 degree C or higher temperate such as 45 degree C. It is widely used for many kinds of industrial, medical, commercial, banks (e.g. ATM), kiosk, vehicles, train, bus, truck, home, hotel, restaurant, airport, gas station, military etc. applications . The components chosen are industrial grade which are able to withstand higher temperature and harsh environment for many years. The total fanless design was specially designed for very dirty environments which are full of dirty, dust, chemical gas or liquid and small particles in the air that can cause damage to the computer system, Our products incorporate a variety of advanced features and anti-shock, anti-vibration designs, yet we are able to offer very cost-effective pricing and solutions. We provide not only the best technology and advanced products, but also the lowest cost products comparing to other similar products of its kind.

This product manual contains a variety of technical information to help you to use or install the product. The manual contains the technical specification, port connectors, diagrams of the board or unit and its various areas, jumper settings, and many other useful areas. Please refer to the manual for details about each specific product. The manual also includes some general idea about special features, software options, and some basic troubleshooting ideas to help you in these areas.

The driver CD contains the various product manuals and many drivers, organized by the product, then device such as LAN, and then by operating system such as Windows XP, 2000, NT, 98 or Linux or other operating systems. Please select the product of interest first, and then select the device area such as LAN or touch screen or other. Then select the operating system of interest such as Linux, XP Embedded, Win CE, Win 98, etc. Now you will have a few choices such as install a driver, look at the driver install guide, or browse the directory. You can easily browse the directory to see related files and tips. The driver CD is designed to auto run under windows, so for best use it is better to run it on windows. However if you are installing from a Linux system for example, you can also browse the driver CD directly to go to the selected product directory, organized by product name.

Whenever the customer has any special requirement, we are very pleased to custom design for them at a much competitive pricing and within the average 4 weeks delivery time.

We are able to custom design the all-in-one or separate Panel PC from a very small 6.4", 7", 8.4", 10.4", 12.1", 15", 17", 18", 21", 23", 30", all the way up to the largest 40" as per the customer's required specifications including in the very cold weather and a higher temperature or in a very harsh environment with dirty, humid, full of particles in the air, etc. Please contact our distributors for further details.

1.2 Pictures and dimensions of PPC-1573PT-COLD

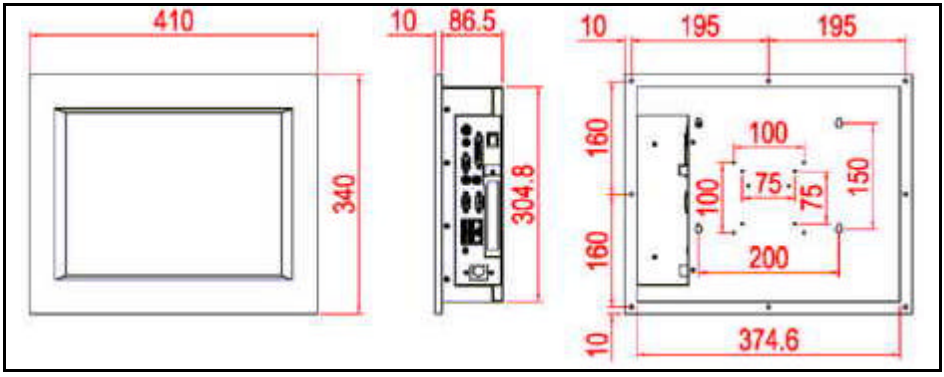
- Pictures of low power PPC-1573PT-COLD (with Aluminum Front Bezel)

IP-65, 66, 67, 68, NEMA-4
100% water proof front

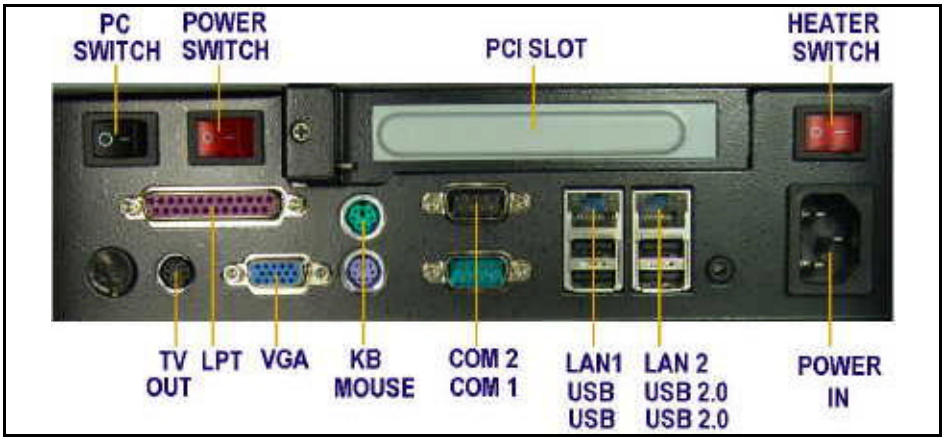
VESA-75 compliant
Desktop stand is optional

4 x USB, 4 x COM, 2 x LAN, MPEG-II, speaker, TV-out

1.3 Dimensions



1.4 I/O Ports



1.5 Optional wall mount kit :

Wall mount Kit

1.6 Power Plug Type

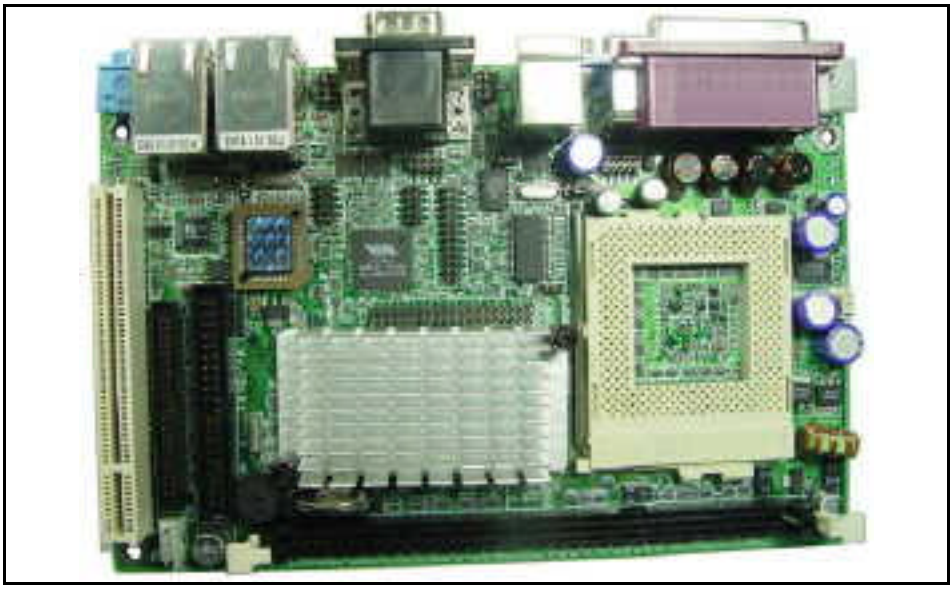
US Type
US, Taiwan, Japan

European Type

UK, Singapore

1.7 Main Board Used In PPC-1572, 1573, 1573-COLD, 1513, 1772, 1773, 1912, 2012, etc. is : NASA-6822VLLA.

Main board : NASA-6822VLLA



For detail of this main board, please refer to the User Manual of NASA-6822VLLA.

1.7 Specifications

Model No.	PPC-1573PT-COLD
Thermal Sensor control	The thermal sensor is able to control between 6 to 16 degree C : 1. When temperature is under 6 degree C, the heater will be heated up automatically. 2. When temperature rises up to 16 degree C, the heater will be shut down automatically. 3. When in sub-zero degree temperature, the heater switch and power switch and PC switch must be turned on. Until the internal temperature rises above 0 degree C, the system will be booted up.
Front bezel	1573PT-COLD has a 10mm thick solid aluminum front bezel
Housing	Made from 1.0mm rugged steel construction
IP & NEMA	Meets 100% water-proof IP-65, 66, 67, 68, NEMA-4 on front
Color	Black color is standard. Silver color is optional at your request
Wall-mount	Meet VESA-75, VESA-100 wall mount standard
LCD specs.	15 inch TFT LCD, 250 cd/m2 high brightness, 1024 x 768 resolutions, 16.77 million colors, 50,000 hours
Touch screen	6-wire resistive touch screen, 2048 x 2048 resolution
Speaker	Built in 2 stereo speakers
Processor	VIA C3 Low power 1GHz CPU

System RAM	Support up to maximum 1GB DDR RAM. Standard is 256MB.
HDD	Standard is 20GB slim size anti-vibration HDD.
VGA	Support second monitor
AGP	Support 4X, 8X AGP speed
Video Memory	Support 16M, 32M, and 64M share memory. Default is 32 or 64M.
MPEG-II chip	Support hardware MPEG-I, MPEG-II video and movies
LAN	Dual fast 100/10 Mbps Ethernets support networking
USB 2.0	4 x USB 2.0 at I/O port. (another 2 x USB pin headers on board)
Serial port	4 x COM ports (2 outside, 2 inside), 3 x RS232, 1 x RS232 / 422 / 485.
Keyboard	1 x PS2 type keyboard port
Mouse	1 x PS2 type mouse port
Printer port	1 x LPT port for printer interface
PCI expansion slot	1 x PCI slot for future expansion purpose
PCI ver. 2.2	Support PCI version 2.2
PCI IDE port	Support ATA-100 x 2 up to 4 devices
Audio jack	Support external speaker or microphone function
Vibration resistance	Passed strict IEC-60068 life random vibration test from 5 – 500 Hz at 2G RMS under Windows XP Pro.
Shock resistance	Passed strict IEC-60068 life shock test from 15G for 11ms duration at 3 axis 6 directions under Windows XP Pro.
Power supply	Standard AC 100-240V power adapter. Output : 19VDC DC 12, 24V power adapters are optional.
Dimensions (WxHxD)	See the above drawing
Operating temperature	From 0 to 50 degree C at an air ventilation area

SECTION 2 INSTALLATION

2.1 How to load Windows O.S.

Put the legal MicroSoft Windows XP CD into the CD-ROM of the PPC-1573PT, follow the instructions step by step and finish the installations of the Windows XP Home or Pro. The installation procedure is same as those ordinary desktop PC.

Sometimes it is better to enter into the BIOS to select CD-ROM as the primary boot-up disk.

2.2 How To Operate This Computer At Sub-Zero Temperature ?

Please follow these procedures :

Step 1 : Plug the power cord into the AC power socket
Step 2 : Turn the Heater switch, Power switch, and PC switch on.
Step 3 : Please wait for a few minutes until the internal heater warming up the internal temperature above 0 degree C and boot up the system.

Note :

1. The internal thermal sensor will detect the internal temperature and automatically control the temperature of the heater.

2. When the internal temperature rises up to 16 degree C, the heater will be automatically cut off.

3. When the internal temperature drops down to 6 degree C, the heater will be automatically triggered on. However, when the system was booted up, the internal temperature should be around 40 degree C or so. Therefore the heater will never be heated up.

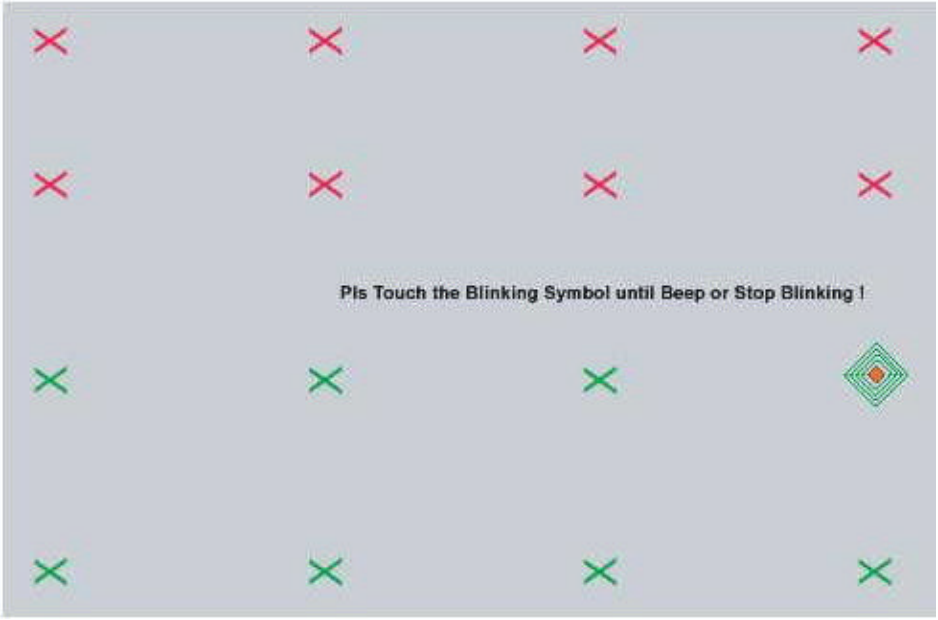
SECTION 3 TOUCH SCREEN DRIVER INSTALLATION

3.1 Touch screen driver

The touch driver was contained in the CD Disk came with the unit. There are two touch drivers. One is E-T, one is S-M. Please choose E-T touch driver to load into the PPC. After loading the E-T touch driver, you must perform a 25-point calibration on the touch. Please be sure that each touch point must be calibrated one by one. After all of the 25 touch points were calibrated. The touch driver is successfully loaded.

3.2 25-Point Calibration

Touch the center point of the blinking icon one by one until all 25 points were calibrated.



SECTION 4 BIOS SETUP

4.1 BIOS Setup

The 8" LCD built in is a Sharp TFT LCD with 640 x 480 resolution and a high brightness of 380 – 400 cd/m2. Please be sure to choose the correct *Display Device* and *Panel Type* at the *Advanced Chipset Features Setup* in case you change the original BIOS setup by accident. Follow the following procedures :

Step 1 : Enter into BIOS Setup Main menu
Step 2 : Choose Advanced Chipset Features Setup
Step 3 : Move to Display Device item, select [CRT+LCD]
Step 4 : Move to Panel Type item, select [00]
Step 5 : Save the setting and Exit the BIOS, restart the system
Finish.

BIOS Set-up :

BIOS Setting for Nagasaki Panel PCs

Model No.	Size	Resolution	Mainboard	Main ➔Advanced Chipset ➔ Select Display Device	
				Display Device	Panel Type
PPC-712	7”	640 x 480	NASA-6822	No matter	**CRT**
PPC-812	8”	640x480	NASA-6822	CRT+LCD	**00**
PPC-872	8”	640 x 480	NASA-6822	CRT+LCD	**00**
PPC-1072-VGA	10.4”	640 x480	NASA-6822	CRT+LCD	**00**
PPC-1072-SVGA	10.4”	800 x 600	NASA-6822	CRT+LCD	**01**
PPC-1272	12”	800 x 600	NASA-6822	CRT+LCD	**01**
PPC-1273	12”	800 x 600	NASA-6822	CRT+LCD	**01**
PPC-1511	15”	1024 x 768	NASA-6822	CRT+LCD	**0A**
PPC-1513	15”	1024 x 768	NASA-6822	CRT+LCD	**0A**
PPC-1514	15”	1024 x 768	NASA-P411	CRT+LCD	**8**
PPC-1572	15”	1024 x 768	NASA-6822	CRT+LCD	**0A**
PPC-1573	15”	1024 x 768	NASA-6822	CRT+LCD	**0A**
PPC-1574	15”	1024 x 768	NASA-P411	CRT+LCD	**8**
PPC-1575	15”	1024 x 768	NASA-6822	CRT+LCD	**0A**
PPC-1576	15”	1024 x 768	NASA-P411	CRT+LCD	**0A**
PPC-1577	15”	1024 x 768	NASA-6822	CRT+LCD	**0A**
PPC-1772	17”	1280 x 1024	NASA-6822	CRT+LCD	**0D**
PPC-1773	17”	1280 x 1024	NASA-6822	CRT+LCD	**0D**
PPC-1774	17”	1280 x 769	NASA-6822	CRT+LCD	**0C**
PPC-1912	19”	1280 x 1024	NASA-6822	CRT+LCD	**0D**
PPC-2172	21”		NASA-6822	CRT	

SECTION 5 CPU Clock and Ratio setting

Only VIA C3 1.0 or 1.2GHz low power CPU can be used on this mainboard.

Note :

1. BIOS setting must select 133MHz as CPU clock speed and 7.5 ratio for best performance.
2. In case you wish to reduce the thermal temperature of the system, you can enter into the BIOS and select a lower ratio e.g. 4.0 or 5.0 than 7.5.

Picture of the VIA C3 low power 1.0 GHz CPU.